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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HARPER, HOLLY R

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/059,446

Applicant(s)

PIEJAK, ROBERT B.

Examiner

Holly R. Harper

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: Element 23 is seen in Figure 1, but is not referenced in the Specification. Page 5, Line 3 mentions Element 22 as the electrical conductors, but in Line 2, Element 22 has been previously designated as the shield. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 3 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Daviet (USPN 6,056,848).

In regard to claim 3, the Daviet reference discloses a thin electrostatic shield interposed between the induction coil and plasma to reduce capacitive coupling (Abstract, Line 3-5). The shield is transparent to the inductive electromagnetic field. A continuous electromagnetically thin layer of conductive material can be used to provide ideal electrostatic shielding (Column 63-

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67). The shield is made of a conducting layer on top of a dielectric layer (Figure 3A, Elements 312 and 304). The Daviet reference discloses several embodiments. One of the embodiments discloses that the conductive layer is about .1 microns to 5 microns (Column 7, Lines 61-64). This range overlaps the applicant's range of 400 to 1000 Angstroms. The Daviet reference also discloses that the shield should be sufficiently thin such that inductive electromagnetic fields penetrate through the shield (Column 8, Lines 17-20).

In regard to claim 4, the Daviet reference discloses that the shield may contain slits or gaps (Column 3, Lines 18-21).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tobin et al. (USPN 5,619,103) in view of Daviet (USPN 6,056,848).

In regard to claims 1 and 5, the Tobin reference discloses an electrodeless plasma lighting device (Column 3, Lines 6-7) that is coated with fluorescent material (Column 5, Line 12) and inductively-coupled (Column 4, Lines 10-11). A Faraday shield is located between the inductor and the dielectric medium (Column 4, Lines 51-52). The Faraday shield is made from a conductive material (Column 5, Lines 60-65). The Faraday shield helps further reduce capacitive coupling (Column 6, Lines 63-67). It is well known in the art that Faraday shields are magnetically transparent electrostatic shields (note Daviet USPN 6,056,848). The Tobin

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reference does not disclose a specified thickness for the electrically conductive layer. It is well known in the art that the shield is desired to be thin so that inductive electromagnetic fields penetrate through the shield. It is noted that the specification of the thickness for the conductive layer is not shown to solve any problems or yield any unexpected results that are not within the scope of Tobin's shield. Accordingly, the specification of the thickness of the shield is considered to be an obvious matter of design choice.

In regard to claim 2, the Tobin reference does not specify the use of slits or gaps in the shield to reduce capacitive coupling. The Daviet reference teaches that the shield may contain gaps or slits to allow the desired amount of capacitive coupling (Column 3, Lines 19-21). Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art to incorporate slits into the shield, as taught by Daviet, to control the amount of capacitive coupling.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hama (USPN 6,149,760) discloses an electrostatic shield with a thin conductive layer.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Holly Harper whose telephone number is (703) 305-7908. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (703) 305-4794. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Holly Harper
Patent Examiner
Art Unit 2879



VIP PATEL
PRIMARY EXAMINER